Farm incomes are forecasted to increase this year nationally for the first time in four years, said Ani Katchova, an associate professor and Farm Income Enhancement Program chair in the CFAES Department of Agricultural, Environmental, and Development Economics.

Part of the expected increase in farm income this year stems from national gains in the sales of cattle, hogs, poultry, eggs and dairy, and the sales of stored crops harvested in a prior year, Katchova said.

Farm assets and equity are also forecasted to rise, Katchova said.

“Financial conditions seem to be improving, albeit slowly. When I say ‘improving,’ we’re coming from a low point in farm income,” Katchova said. “Hopefully, the worst is over.”

Katchova spoke on November 9 at the Agricultural Policy and Outlook Conference, an annual event organized by the CFAES Department of Agricultural, Environmental, and Development Economics. The event at Ohio State’s Columbus campus kicked off a series of meetings that will be held statewide from January 22 to March 23 to provide the 2018 financial outlook for farmers and agribusinesses.

At the meetings, Ohio communities will be updated on policy changes, key issues and market behavior relating to farm, food, energy resources and the environment. Each meeting will be hosted by an OSU Extension office or a local agribusiness. For meeting locations and admission costs, contact the organization that’s hosting the meeting.

The meeting schedule is as follows.

**PICKAWAY COUNTY:** January 22

**MADISON COUNTY:** January 26

**DEFIANCE COUNTY:** January 29

**WAYNE COUNTY/WOOSTER:** January 31

**CRAWFORD COUNTY:** January 31

**DARKE COUNTY:** March 23
Combating Ohio’s opioid crisis

One effective way to combat Ohio’s growing opioid crisis is to prioritize treatment in underserved areas across the state, because those are among the areas struggling the most with opioid abuse, said an analyst with the C. William Swank Program in Rural-Urban Policy at Ohio State.

According to the Ohio Department of Health, Ohio now leads the nation in opioid-related overdose deaths, with a record 4,050 overdose deaths reported in 2016. “As it now stands, Ohio likely only has the capacity to treat 20 to 40 percent of the estimated 92,000 to 170,000 Ohioans who are abusing or dependent on opioids,” said Mark Partridge, Swank program chair and professor in CFAES’ Department of Agricultural, Environmental, and Development Economics.

According to Taking Measure of Ohio’s Opioid Crisis, a 2017 report released by Swank program researchers, medication-assisted treatment is the most clinically effective and cost-efficient method for reducing opioid addiction, opioid abuse and opioid overdose deaths.

But in Ohio, some 60 percent of those abusing or dependent on opioids lack access to such treatment, Partridge said. “As it now stands, many people in rural areas of Ohio have extremely limited access to medication-assisted treatment, which is a particularly critical issue in the rural areas of southwest Ohio where opioid abuse rates are high,” he said.

“Enacting new laws to take down pill mills and lessen access to prescription opioid drugs alone isn’t going to fix the problem,” Partridge said. “We need a broader approach that includes working with physicians and hospitals in underserved areas to encourage providers to obtain the waiver required to prescribe opioid treatments.”

According to Taking Measure of Ohio’s Opioid Crisis, which is available for download at go.osu.edu/takingmeasure, three common medications can be used in the treatment of opioid addiction: methadone, buprenorphine and naltrexone.

Yet, Ohio has only 26 certified methadone treatment centers and only 377 doctors who are certified to prescribe buprenorphine.

According to Taking Measure of Ohio’s Opioid Crisis, three common medications can be used in the treatment of opioid addiction: methadone, buprenorphine and naltrexone.

We need a two-pronged approach: treatment and a leg up economically.

MIKE BETZ
Assistant Professor in Ohio State’s Department of Human Sciences

“It has been estimated that for every dollar spent on methadone and buprenorphine treatment, $1.80 in social savings would be realized,” said report co-author Mike Betz, assistant professor in Ohio State’s Department of Human Sciences.

Betz said there needs to be a shift in emphasis from stopping pill mills and curbing over-prescribing, to treating those already addicted to bring them into the mainstream and assist them in becoming more productive.

Opioid drugs, including prescription painkillers and heroin, killed more than 33,000 people nationwide in 2015, more than any year on record, according to the U.S. Centers for Disease Control and Prevention. In 2015, Ohio had 3,050 overdose deaths, with 58.2 percent of the deaths blamed on the use of fentanyl and its derivatives, an opioid 50 times stronger than heroin, officials said.

The annual, estimated cost of opioid abuse, opioid addiction and opioid overdoses to Ohio is between $6.6 billion and $8.8 billion, the report said.

“Our estimates suggest that the total social and economic costs of the opioid crisis are similar to what the state spends on K–12 education,” said Mark Rembert, report co-author and co-founder of Energize Clinton County, a community economic development nonprofit.

Another key finding from the report is that there is a robust and direct correlation between unemployment rates and opioid overdoses and deaths. Individuals living in high unemployment regions tend also to have high levels of opioid abuse.

“The longer people are unemployed, the more opioid abuse and overdoses occur,” said Bo Feng, another report co-author and a Swank research associate.

Partridge said improving the labor market in hard-hit communities would help. “Middle- and lower-class families need sufficient incomes and stability,” he said. “While that is a harder policy level to pull, it’s imperative to make any real change.”

CFAES IMPACT JANUARY/FEBRUARY 2018
Reducing the environmental impact of cows’ waste

No disrespect to cows, but they produce a lot of gas.

And while farmers may be unfazed by the smell, the gas is methane, one of the most potent greenhouse gases.

Across the globe, livestock emit 14.5 percent of all greenhouse gases (methane, carbon dioxide, nitrous oxide and fluorinated gases) released in the environment, and more than half of that comes specifically from cows, according to a United Nations report.

Two CFAES researchers are studying how to cut methane gas produced by cows, and reduce the phosphorus and nitrogen that end up in their manure — and potentially in waterways.

Zhongtang Yu, a CFAES molecular biologist, is working to improve cattle digestion to reduce the amount of methane they expel.

Another CFAES researcher, Chanhee Lee, an assistant professor of animal sciences, is focusing on reducing cows’ waste — solids and gases.

Reducing the methane gas generated by cattle not only cuts greenhouse gas emissions, but also potentially allows more of the feed cattle consume to be directed to their body and production.

“Methane is bad because not only is it a greenhouse gas, but it is also a waste of feed,” Yu said.

Yu’s current research is examining how natural compounds can reduce the number of protozoa in a cow’s stomach, thus decreasing the amount of methane and nitrogen a cow expels.

Yu has found that essential oils — including garlic, rosemary and oregano oils, as well as saponins and tannins — are effective in reducing the amount of methane cattle give off in their gas and burps. Saponins are compounds found in some vegetables, beans and herbs. Tannins are bitter-tasting organic substances derived from some plants.

Lee is studying the effect of giving cows 3-nitrooxypropanol, a white powder that can be mixed in with their feed.

Not only does Lee’s research aim to reduce the methane gas cows expel, but also to cut the nitrogen and phosphorus excreted in their manure. He is studying whether the amount of protein and phosphorus in the national feed requirements for beef and dairy cattle can be reduced without jeopardizing the nutrition and strength of cows.

The risk of giving cows more phosphorous or other nutrients is that the excess lands in their manure and urine, Lee said.

“We want to reduce the environmental impact of cows’ waste, but we also want to improve cows’ ability to produce,” Lee said. “We are going to have significant worldwide population growth, and we need to feed all those people.”

Methane is bad because not only is it a greenhouse gas, but it is also a waste of feed.

ZHONGTANG YU
CFAES Molecular Biologist
Conservation Tillage and Technology Conference is in March

A conference to help farmers promote and maintain the health of their soil will be held from March 6–7 in Ada, Ohio.

The annual Conservation Tillage and Technology Conference will be held at the McIntosh Center of Ohio Northern University, 525 S. Main St., beginning at 8 a.m. on March 6.

The conference is being held in conjunction with OSU Extension, in addition to OARDC, the U.S. Department of Agriculture, and the Soil and Water Conservation Districts of Northwest Ohio.

Topics to be covered include soil health, water quality, manure management, and slugs, voles, and other varmints. For more information, visit go.osu.edu/tillage.

Research facility gives Ohio a competitive edge

CFAES’ Ralph Regula Plant and Animal Agrosecurity Research (PAAR) facility boasts high-level biosafety ratings of BSL-3 and BSL-3-Agriculture. Inside the new building, CFAES scientists can study diseases of both crop plants and food animals, and then do the essential work of developing ways to fight them.

Located in Wooster and featuring state-of-the-art biocontainment technology, PAAR is the only facility so rated in Ohio, one of only two in the entire United States to work on both plants and animals, and a competitive edge for CFAES scientists and the Ohio farmers they serve.

Learn more at go.osu.edu/paar.

Help CFAES change lives in Ohio

As part of its mission, OSU Extension can help prevent substance/opioid abuse in Ohio. Want to get involved?

Support the Ohio AgrAbility Program (Fund #313467) at go.osu.edu/agrabilityfund. The program provides education, resources and technical assistance to those in agriculture who have experienced a disabling condition but want to continue to farm.

With 4-H devoting more of its CARTEENS (Fund #305036) traffic safety class curriculum to impaired driving, please give at go.osu.edu/carteens4h.

Help Extension programming strengthen families and communities, enhance agriculture and the environment, and advance employment opportunities and income at go.osu.edu/extwork.

Ohio climbing up in wine production

With help from CFAES researchers, Ohio has inched up in its ranking for wine production to the sixth highest state in the nation. The number of gallons produced in 2016 doubled the total produced in 2012, according to a report from the Ohio Department of Agriculture.

Assisting the state’s winemakers and grape growers are CFAES researchers who focus on pests and diseases that plague vineyards and winemaking experts’ savvy about the fermentation process.